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Applicant : **ISTITUTO SIEROVACCINOGENO**
ITALIANO I.S.I. S.p.A.
I-55020 Castelveccchio Pascoli, Lucca (IT)

Inventor : **Chiellini, Emo**
Via Renato Fucini 16
I-56100 Pisa (IT)
Inventor : **Solaro, Roberto**
Via Morandi 2
I-56100 Pisa (IT)
Inventor : **Bemporad, Luca**
Via Pungiluppo 8
I-56100 Pisa (IT)

Representative : **de Simone, Domenico et al**
Ing. Barzanò & Zanardo Roma S.p.A. Via
Piemonte 26
I-00187 Roma (IT)

Functional polyesters from glycidyl derivatives and cyclic anhydrides or carbon dioxide.

New biodegradable functional polyesters and polycarbonates can be produced by copolymerization of cyclic anhydrides or carbon dioxide with the glycidyl ethers of protected alditols, N-glycidyl pyrrolidone and their mixtures with alkylene oxides in the presence of suitable polymerization catalysts. Such polyesters and polycarbonates are constituted by monomeric residues containing one or more isopropylidene group in the side chain. They can be converted, by partial or complete removal of side chain isopropylidene groups, to the corresponding polymers having two or more free hydroxyl units per structural unit derived from the alditol glycidyl ether. The resulting polyhydroxylated polyesters and polycarbonates are well suited for the production of thermoplastics and thermosets and for the formulation of biodegradable systems to be used in pharmaceuticals and biomedicine.

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EUROPEAN SEARCH REPORT

Application Number

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	CHEMICAL ABSTRACTS, vol. 82, no. 10, 19th May 1975, page 19, column 2, abstract no. 125861f, Columbus, Ohio, US; & JP-A-74 99 393 (TOYO SODA MFG. CO., LTD) 19-09-1974 * Abstract * ---	1-11,16 -17,20- 23,28- 29	C 08 G 63/42 C 08 G 64/00 C 08 G 63/84 C 08 G 64/34
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A	DIE MAKROMOLEKULARE CHEMIE, vol. 178, no. 1, January 1977, pages 47-54, Basel, DE; W. KURAN et al.: "Organozinc catalyst systems for the copolymerization of carbon dioxide with propylene oxide" * Whole document * ---	1-8,13- 16,20, 25-28	TECHNICAL FIELDS SEARCHED (Int. Cl.5) C 08 G
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 01-12-1992	Examiner MIAO K.Y-P.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document			

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